

BEES OF MASSACHUSETTS

Massachusetts is home to 396 recorded bee species, covering 43 genera and six of the seven bee families. These bees come in all different colors, shapes, and sizes. Bees also display a variety of distinguishing traits: for example, their social behaviors, nesting habits, and diet breadth. Let's get to know the bees of Massachusetts by examining their traits!



Agapostemon virescens, the bi-colored striped sweat bee, foraging on *Geranium maculatum*. Photo by Nicole Bell.

DIET BREADTH

GENERALIST (polylectic) bees forage for pollen from a wide array of flowering plant families.*

78% of recorded Massachusetts bees are generalists

*Parasitic bees do not forage for pollen, but are included in this group as potential incidental pollinators.

SPECIALIST (oligolectic) bees limit their pollen foraging to typically one plant family or genus.

22% of recorded Massachusetts bees are specialists

Fun fact! Parasitic bees often look very wasp-like. They may lack obvious body hair, be bright in color, and fly close to the ground looking for host nests.



SOCIAL BEHAVIOR

SOLITARY bees live alone: a single female builds and provisions each nest, though females sometimes share nest entrances.

SUBSOCIAL bees nest alone, but multiple females, and sometimes daughters, interact to increase offspring survival; for example, guarding nests against attack from natural enemies.

EUSOCIAL bees live in large groups, and exhibit cooperative brood care, overlapping generations, and division of labor.

PARASITIC bees enter the nests of pollen-collecting bees and kill the host egg or larvae.

NESTING HABITS

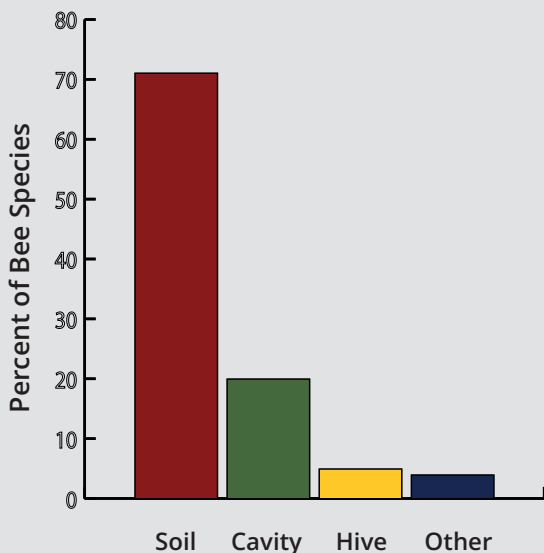
SOIL nesting bees excavate nests in the soil.

CAVITY nesting bees live in pre-existing cavities, sometimes in wood or artificial substrates like cracks in buildings.

HIVE nesting bees live in large structures characterized by a food storage system called “pollen pots.”

OTHER nesting habits include excavating in wood, pithy stems, and unknown substrates (following Veit et al. 2022).

Where do Massachusetts bees nest?



WHAT DO NESTS LOOK LIKE?



SOIL



CAVITY



HIVE

Most bees around the world nest in the soil. Female bees will excavate nests in the ground and then begin foraging for their offspring food provisions.

Photos from left to right: Jen Hayes, Nicole Bell, Nicole Bell.

ADDITIONAL RESOURCES

Veit, M.F., Ascher, J.S., Milam, J., Morrison, F.R., Goldstein, P.Z., 2022. A Checklist of the Bees of Massachusetts (Hymenoptera: Apoidea: Anthophila). *Entomol. Mem.* 94, 81–157. <https://doi.org/10.2317/0022-8567-94.2.81>

LEARN MORE

Follow us on Instagram! @umass_pollinators

Visit our website (front) for educational content & upcoming events!

“Bee” on board with informing future pollinator efforts in the Northeast... scan the QR code to take a brief survey!

